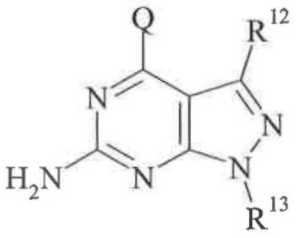
Claims:

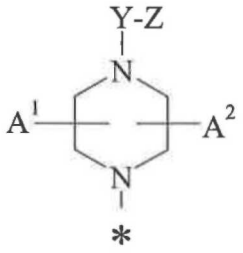
1. A compound of formula (IA) or an *N*-oxide thereof, or a pharmaceutically acceptable salt thereof:



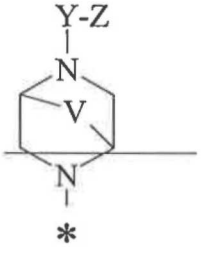
(IA)

wherein

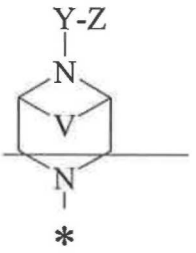
Q represents a group of formula (Qa)~~, (Qb), (Qc), (Qd) or (Qe)~~:



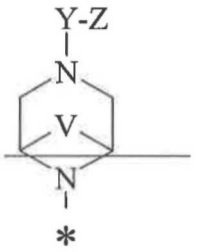
(Qa)



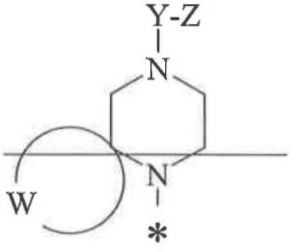
(Qb)



(Qc)



(Qd)



(Qe)

in which the asterisk (*) represents the point of attachment to the remainder of the molecule;

~~V represents $-CH_2-$, $-C(CH_3)_2-$, $-CH_2CH_2-$, $-CH_2CH_2CH_2-$, $-CH_2OCH_2-$, $-CH_2SCH_2-$, $-CH_2S(O)CH_2-$, $-CH_2S(O)_2CH_2-$ or $-CH_2N(R^4)CH_2-$;~~

~~W represents the residue of a C_{3-7} cycloalkyl or C_{3-7} heterocycloalkyl group;~~

Y represents a linker group selected from -C(O)-, -C(O)N(R^4)- and -C(O)C(O)-;

Z represents ~~hydrogen; or Z represents C_{1-6} alkyl, C_{2-6} alkenyl,~~ C_{3-7} cycloalkyl, ~~C_{3-7} cycloalkyl(C_{1-6})alkyl,~~ C_{3-7} heterocycloalkyl, ~~C_{3-7} heterocycloalkyl(C_{1-6})alkyl,~~ aryl, ~~aryl(C_{1-6})alkyl,~~ or heteroaryl ~~or heteroaryl(C_{1-6})alkyl~~, any of which groups may be optionally substituted by one, two or three substituents independently selected from halogen, cyano, ~~nitro,~~ C_{1-6} alkyl, trifluoromethyl, ~~cyano(C_{1-6})alkyl,~~ (C_{3-7})heterocycloalkyl, ~~halo(C_{3-7}) heterocycloalkyl, (C_{1-6})alkyl(C_{3-7})heterocycloalkyl, (C_{2-6})alkoxycarbonyl(C_{3-7})hetero-cycloalkyl,~~ dihalo(C_{3-7})heterocycloalkyl, ~~(C_{3-7})heterocycloalkyl(C_{1-6})alkyl, (C_{1-6})alkyl-(C_{3-7})heterocycloalkyl(C_{1-6})alkyl, heteroaryl,~~ hydroxy, oxo, C_{1-6} alkoxy, difluoromethoxy, trifluoromethoxy, trifluoroethoxy, ~~(C_{3-7})heterocycloalkoxy, (C_{2-6})alkoxycarbonyl(C_{3-7}) heterocycloalkoxy, (C_{3-7})heterocycloalkyl(C_{1-6})alkoxy, aryloxy, haloaryloxy, (C_{1-6}) alkoxyaryloxy, C_{1-3} alkylenedioxy, dihalo(C_{1-3})alkylenedioxy, arylcarbonyloxy, C_{1-6} alkylthio, C_{1-6} alkylsulfinyl,~~ C_{1-6} alkylsulfonyl, ~~amino,~~ C_{1-6} alkylamino~~,~~ and di(C_{1-6})alkyl-amino~~, di(C_{1-6})alkylamino(C_{1-6})alkyl, arylamino, C_{2-6} alkylcarbonylamino, C_{2-6} alkoxy-carbonylamino, C_{1-6} alkylsulfonylamino, formyl, C_{2-6} alkylcarbonyl, C_{3-6} cycloalkyl-carbonyl, C_{3-6} heterocycloalkylcarbonyl, carboxy, C_{2-6} alkoxycarbonyl, aryloxycarbonyl, aminocarbonyl, C_{1-6} alkylaminocarbonyl, di(C_{1-6})alkylaminocarbonyl, aminosulfonyl, C_{1-6} alkylaminosulfonyl and di(C_{1-6})alkylaminosulfonyl~~;

A^1 represents hydrogen, methyl, ethyl, isopropyl, isobutyl, trifluoromethyl, trifluoroethyl, $-CH_2OR^a$ or $-CH_2CH_2OR^a$ ~~cyano or trifluoromethyl; or A^1 represents C_{1-6} alkyl, optionally substituted by one or more substituents independently selected from fluoro, $-OR^a$, trifluoromethoxy, $-NR^bR^e$, $-CO_2R^d$ and $-CONR^bR^e$; or A^1 represents C_{3-7} cycloalkyl~~;

A^2 represents hydrogen or C_{1-6} alkyl;

R^{12} represents hydrogen, trifluoromethyl or C_{1-6} alkyl;

R^{13} represents ~~hydrogen or~~ C_{1-6} alkyl;

R^4 represents hydrogen~~;~~ or ~~R^4 represents~~ C_{1-6} alkyl~~, optionally substituted by one or more substituents independently selected from $-OR^a$ and $-NR^bR^c$~~; and

R^a represents hydrogen; or R^a represents C_{1-6} alkyl, aryl, aryl(C_{1-6})alkyl, heteroaryl or heteroaryl(C_{1-6})alkyl, any of which groups may be optionally substituted by one or two substituents independently selected from C_{1-6} alkoxy and oxo;

R^b represents hydrogen or trifluoromethyl; or C_{1-6} alkyl, C_{3-7} cycloalkyl, C_{3-7} cycloalkyl(C_{1-6})alkyl, aryl, aryl(C_{1-6})alkyl, C_{3-7} heterocycloalkyl, C_{3-7} heterocycloalkyl-(C_{1-6})alkyl, heteroaryl or heteroaryl(C_{1-6})alkyl, any of which groups may be optionally substituted by one or two substituents independently selected from C_{1-6} alkoxy, C_{1-6} alkylthio, C_{1-6} alkylsulphinyl, C_{1-6} alkylsulphonyl, hydroxy, cyano, C_{2-6} alkoxycarbonyl, di(C_{1-6})alkylamino and C_{2-6} alkoxycarbonylamino; and

R^e represents hydrogen; or C_{1-6} alkyl, C_{3-7} cycloalkyl or C_{3-7} heterocycloalkyl, any of which groups may be optionally substituted by one or two substituents independently selected from C_{2-6} alkylcarbonyl and C_{2-6} alkoxycarbonyl; or

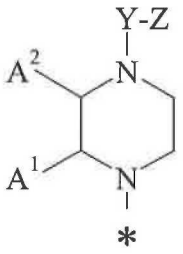
R^b and R^e, when taken together with the nitrogen atom to which they are both attached, represent azetidin-1-yl, pyrrolidin-1-yl, oxazolidin-3-yl, isoxazolidin-2-yl, thiazolidin-3-yl, isothiazolidin-2-yl, piperidin-1-yl, morpholin-4-yl, thiomorpholin-4-yl, piperazin-1-yl, homopiperidin-1-yl, homomorpholin-4-yl or homopiperazin-1-yl, any of which groups may be optionally substituted by one or two substituents independently selected from C_{1-6} alkyl, C_{1-6} alkylsulphonyl, hydroxy, hydroxy(C_{1-6})alkyl, amino(C_{1-6})-alkyl, cyano, oxo, C_{2-6} alkylcarbonyl, carboxy, C_{2-6} alkoxycarbonyl, amino, C_{2-6} alkyl-carbonylamino, C_{2-6} alkylcarbonylamino(C_{1-6})alkyl, C_{2-6} alkoxycarbonylamino, C_{1-6} alkyl-sulphonylamino and aminocarbonyl; and

R^d represents hydrogen; or C_{1-6} alkyl, C_{3-7} cycloalkyl, aryl, C_{3-7} heterocycloalkyl or heteroaryl, any of which groups may be optionally substituted by one or two substituents independently selected from halogen, C_{1-6} alkyl, C_{1-6} alkoxy, oxo, C_{2-6} alkylcarbonyloxy and di(C_{1-6})alkylamino;

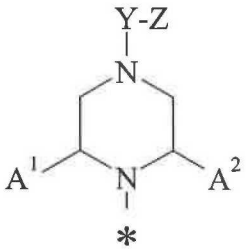
the heterocycloalkyl groups referred to above are selected from oxetanyl, azetidinyl, tetrahydrofuranyl, dihydrobenzofuranyl, pyrrolidinyl, indolinyl, thiazolidinyl, imidazolidinyl, tetrahydropyranyl, chromanyl, piperidinyl, 1,2,3,4-tetrahydroquinolinyl, 1,2,3,4-tetrahydroisoquinolinyl, piperazinyl, 1,2,3,4-tetrahydroquinoxalinyl, homopiperazinyl, morpholinyl, benzoxazinyl and thiomorpholinyl; and

the heteroaryl groups referred to above are selected from furyl, benzofuryl, dibenzofuryl, thienyl, benzothienyl, dibenzothienyl, pyrrolyl, indolyl, pyrrolo[2,3-*b*]-

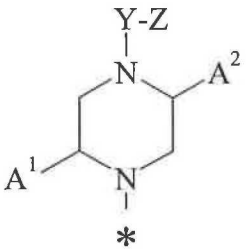
2. A compound as claimed in claim 1 wherein Q represents a group of formula (Qa-1), (Qa-2) or (Qa-3):



(Qa-1)



(Qa-2)

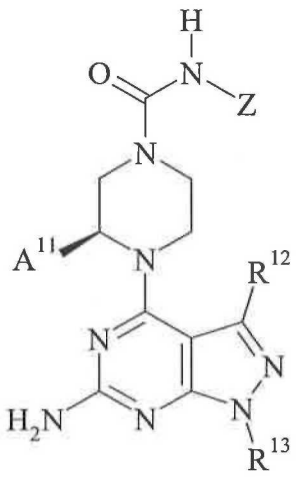


(Qa-3)

in which the asterisk (*) represents the point of attachment to the remainder of the molecule; and

Y, Z, A^1 and A^2 are as defined in claim 1.

3. A compound as claimed in claim 1 or claim 2 represented by formula (IIA), or a pharmaceutically acceptable salt thereof:



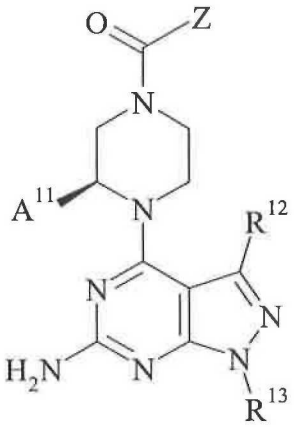
(IIA)

wherein

A^{11} represents hydrogen, methyl, ethyl, isopropyl, isobutyl, trifluoromethyl, $-CH_2CF_3$, hydroxymethyl or hydroxyethyl ~~cyano, C_{1-6} alkyl, trifluoromethyl, $-CH_2CF_3$, $-CH_2OR^a$, $-CH_2CH_2OR^a$, $-CH_2CO_2R^d$, $-CH_2CONR^bR^c$ or C_{3-7} cycloalkyl~~; and

Z, R^{12} and, R^{13}, ~~R^a, R^b, R^c and R^d~~ are as defined in claim 1.

4. A compound as claimed in claim 1 or claim 2 represented by formula (IIB), or a pharmaceutically acceptable salt thereof:



(IIB)

wherein Z, R^{12} and R^{13} are as defined in claim 1; and

A^{11} is as defined in claim 3.

5. A compound as claimed in claim 3 or claim 4 wherein A^{11} represents methyl, ethyl, hydroxymethyl or hydroxyethyl.

~~6. A compound as claimed in any one of the preceding claims wherein Z represents C_{3-7} cycloalkyl, C_{3-7} heterocycloalkyl, aryl or heteroaryl, any of which groups may be optionally substituted by one, two or three substituents independently selected from halogen, cyano, C_{1-6} alkyl, trifluoromethyl, (C_{3-7})heterocycloalkyl, dihalo(C_{3-7})-heterocycloalkyl, hydroxy, oxo, C_{1-6} alkoxy, difluoromethoxy, trifluoromethoxy, trifluoroethoxy, C_{1-6} alkylsulfonyl, C_{1-6} alkylamino and di(C_{1-6})alkylamino.~~

~~7.~~6. A compound as claimed in any one of the preceding claims ~~6~~ wherein Z represents (methoxy)(methyl)-phenyl, (methyl)(trifluoromethoxy)phenyl, (methoxy)(methyl)pyridinyl, (ethyl)-(methoxy)pyridinyl, (ethoxy)(methyl)pyridinyl or dimethoxypyridinyl.

~~8.~~7. A compound as claimed in any one of the preceding claims wherein R^{12} represents hydrogen or methyl.

~~9.~~8. A compound as claimed in any one of the preceding claims wherein R^{13} represents ~~hydrogen or~~ methyl.

~~10.~~9. A compound as claimed in claim 1 selected from the following:

~~6-amino-4-{4-[(4-methoxy-2-methylphenyl)carbamyl]piperazin-1-yl}-1*H*-pyrazolo[3,4-*d*]pyrimidine;~~

~~6-amino-4-{4-[(4-methoxyphenyl)carbamyl]piperazin-1-yl}-1*H*-pyrazolo[3,4-*d*]-pyrimdine;~~

~~6-amino-4-{4-[(4-methoxy-2-methylphenyl)carbamyl]-2-(*S*)-methylpiperazin-1-yl}-1*H*-pyrazolo[3,4-*d*]pyrimidine;~~

~~6-amino-4-{4-[(4-methoxyphenyl)carbamyl]-2-(*S*)-methylpiperazin-1-yl}-1*H*-pyrazolo-[3,4-*d*]pyrimidine;~~

6-amino-4-{4-[(4-methoxy-2-methylphenyl)carbamyl]-2-(*S*)-methylpiperazin-1-yl}-1-methylpyrazolo[3,4-*d*]pyrimidine;

6-amino-4-{4-[(4-methoxyphenyl)carbamyl]-2-(*S*)-methylpiperazin-1-yl}-1-methyl-pyrazolo[3,4-*d*]pyrimidine;

6-amino-4-[4-(indan-5-ylcarbamyl)-2-(*S*)-methylpiperazin-1-yl]-1-methylpyrazolo[3,4-*d*]pyrimidine;

6-amino-4-(4-{[4-(dimethylamino)phenyl]carbamyl}-2-(*S*)-methylpiperazin-1-yl)-1-methylpyrazolo[3,4-*d*]pyrimidine;

(3*S*)-4-(6-amino-1,3-dimethylpyrazolo[3,4-*d*]pyrimidin-4-yl)-*N*-[6-(3,3-difluoroazetidin-1-yl)-2-methylpyridin-3-yl]-3-methylpiperazine-1-carboxamide;

(3*S*)-4-(6-amino-1,3-dimethylpyrazolo[3,4-*d*]pyrimidin-4-yl)-*N*-(4-methoxy-2-methyl-phenyl)-3-methylpiperazine-1-carboxamide;

(3*S*)-4-(6-amino-1,3-dimethylpyrazolo[3,4-*d*]pyrimidin-4-yl)-*N*-(6-methoxy-2-methyl-pyridin-3-yl)-3-methylpiperazine-1-carboxamide;

(3*R*)-4-(6-amino-1-methylpyrazolo[3,4-*d*]pyrimidin-4-yl)-*N*-[6-(3,3-difluoroazetidin-1-yl)-2-methylpyridin-3-yl]-3-(hydroxymethyl)piperazine-1-carboxamide;

(3*S*,5*S*)-4-(6-amino-1-methyl-1*H*-pyrazolo[3,4-*d*]pyrimidin-4-yl)-*N*-(6-methoxy-2-methylpyridin-3-yl)-3,5-dimethylpiperazine-1-carboxamide;
4-(6-amino-1-methyl-1*H*-pyrazolo[3,4-*d*]pyrimidin-4-yl)-*N*-(6-methoxy-2-methylpyridin-3-yl)-3-(trifluoromethyl)piperazine-1-carboxamide;
4-(6-amino-1-methyl-1*H*-pyrazolo[3,4-*d*]pyrimidin-4-yl)-*N*-(4-methoxy-2-methylphenyl)-3-(trifluoromethyl)piperazine-1-carboxamide;
(3*S*)-4-(6-amino-1,3-dimethyl-1*H*-pyrazolo[3,4-*d*]pyrimidin-4-yl)-*N*-(6-fluoro-1-methyl-1*H*-indazol-3-yl)-3-methylpiperazine-1-carboxamide;
(3*S*)-4-(6-amino-1,3-dimethyl-1*H*-pyrazolo[3,4-*d*]pyrimidin-4-yl)-*N*-(5-fluoro-1-methyl-1*H*-indazol-3-yl)-3-methylpiperazine-1-carboxamide;
(3*S*)-4-(6-amino-1,3-dimethyl-1*H*-pyrazolo[3,4-*d*]pyrimidin-4-yl)-*N*-[6-(difluoromethoxy)-2-methylpyridin-3-yl]-3-methylpiperazine-1-carboxamide;
(3*S*)-4-(6-amino-1,3-dimethyl-1*H*-pyrazolo[3,4-*d*]pyrimidin-4-yl)-*N*-[5-(dimethylamino)-3-methylpyrazin-2-yl]-3-methylpiperazine-1-carboxamide; and
(3*S*)-4-(6-amino-1,3-dimethyl-1*H*-pyrazolo[3,4-*d*]pyrimidin-4-yl)-*N*-[4-(difluoromethoxy)-2-methylphenyl]-3-methylpiperazine-1-carboxamide.

~~11.~~10. A compound of formula (IA) as defined in claim 1 or an *N*-oxide thereof, or a pharmaceutically acceptable salt thereof, for use in therapy.

~~12.~~11. A compound of formula (IA) as defined in claim 1 or an *N*-oxide thereof, or a pharmaceutically acceptable salt thereof, for use in the treatment and/or prevention of an inflammatory, autoimmune or oncological disorder; a viral disease or malaria; or organ or cell transplant rejection.

~~13.~~12. A pharmaceutical composition comprising a compound of formula (IA) as defined in claim 1 or an *N*-oxide thereof, or a pharmaceutically acceptable salt thereof, in association with a pharmaceutically acceptable carrier.

~~14.~~13. The use of a compound of formula (IA) as defined in claim 1 or an *N*-oxide thereof, or a pharmaceutically acceptable salt thereof, for the manufacture of a medicament for the treatment and/or prevention of an inflammatory, autoimmune or oncological disorder; a viral disease or malaria; or organ or cell transplant rejection.